

MYP moderation report

School: International School

Subject: MATHEMATICS

This report should be read in conjunction with the general report for this subject.

The number of student folders that the school will submit in 2010 will
[change to 4](#)

Section A General Comments

Was the correct number of student folders submitted?

[Yes](#)

If not, was an adequate explanation given?

[N/A](#)

Was there a separate background information folder?

[Yes](#)

Was the correct distribution of comparatively good, average and comparatively weak student work included?

[Yes](#)

If not, was an adequate explanation given?

[N/A](#)

Were the prescribed minimum tasks included?

[Yes](#)

Was the moderation checklist included?

[Yes](#)

Was the previous year's report included?

[Yes](#)

Were the F3.1 forms completed correctly?

[Yes](#)

Was the correct number of judgments given against each criterion?

[Yes](#)

Were the same tasks included for all students?

[Yes](#)

If not, was an adequate explanation given?

[N/A](#)

Was the sample easy to follow?

[Yes](#)

Had recommendations from the previous report been followed?

[N/A](#)

Section B Assessment tasks

Task 1

[Broad-based examination](#)

Brief description of the task

This broad-based task was appropriate for assessment using criterion A as it assessed knowledge and understanding from three branches of mathematics (Algebra, Geometry and Trigonometry, Statistics and Probability). The examination, undertaken during a 60-minute session, was divided into three sections. The first part allowed the students to demonstrate their proficiency at responding to a group of 13 more familiar questions. This was followed by two sections of two or three questions that the students answered to demonstrate a good or excellent understanding of the previous work. Several of the questions in the first section were from the extended mathematics topics of vectors and matrices.

Comments on the application of the assessment criteria and any change of levels

The moderation team noted that there were marks indicated on the student answer sheets and is not aware of how the marks were used in the determination of the levels awarded to the students. The determination of the achievement level should be by using a best-fit approach of the published MYP mathematics criteria.

Using the best-fit approach, the moderation team considered that Student X's paper demonstrated an ability to solve more challenging problems and raised the achievement level to 7. In addition, Student Y's level was raised to 5 as the paper showed an ability to make appropriate deductions when solving challenging problems.

Did the design of the task allow students to reach the highest levels of the criteria?

Yes

Comments

The students could achieve the highest descriptor levels because the challenging questions were identified on the paper.

The moderation team suggests the number of questions in each section of the paper be more equitable to allow the students to achieve the higher levels.

Was the background information adequate?

Yes

Comments

The background information contained the student test paper and answers.

Task 2**Investigating Quadratics****Brief description of the task**

This investigative task was done in class over three periods as well as homework sessions during the period given to complete the work. The students were to describe the relationship between changes to a parameter in the quadratic function and observed changes to the associated graph. The fourth part of the investigation required the students to predict, before demonstrating, the sequence of the transformations through the use of parameters.

Comments on the application of the assessment criteria and any change of levels

The task was appropriately assessed using criterion C.

The moderation team placed an X for the achievement level indicated on the F3.1 form for Student Z as there were already two assessments for criterion B, for which all students had presented.

Did the design of the task allow students to reach the highest levels of the criteria?

Yes

Comments

The task, performed on tablets, allowed the students to integrate the technology into the presentation of their solutions.

Was the background information adequate?

Yes

Comments

In addition to the student worksheet and task-specific clarification, the background material included a sound file of part of a lesson in which the investigation was presented. The sound file provided a full documentation of the instructions provided to the students.

Task 3

Matrix Inverse Investigation

Brief description of the task

The investigative task, for which the students required knowledge of matrix multiplication and solution of simultaneous equations, was completed during four class periods and the intervening homework sessions. The students were required to discover the inverse matrix for multiplication through the investigation.

During the introductory lesson they were led through the important features of an identity element and an inverse element. The task required the students to make a conjecture about the nature of the inverse element.

Comments on the application of the assessment criteria and any change of levels

This task was suitably assessed using criteria B, C and D. This task, performed on tablets allowed the students to integrate the technology into the presentation of their solutions.

In the application of the new criterion B, the moderation team considered the listing of procedures for the students to undertake prescriptive and did not allow the students to select a problem-solving technique. However, no reduction in achievement levels was made because this task was accepted in the previous moderation session. The moderation team would advise the school to modify the task to allow the students to achieve the higher levels in future years.

Did the design of the task allow students to reach the highest levels of the criteria?

Yes

Comments

In developing their presentations the students were advised to use their time wisely but were required to submit their work using an element of technology, writing by hand in OneNote or using word editor and equation editor.

Was the background information adequate?

Yes

Comments

In addition to the student worksheet, with task-specific clarifications and answers, the background material included a sound file of part of a lesson in which the investigation was presented. The sound file provided a full documentation of the instructions provided to the students.

Task 4 (Please insert title)

Investigating Circle Theorems

Brief description of the task

In this investigative task the students were given two one-hour sessions to recognize patterns and to describe them in the form of a conjecture. In the first hour the students manipulated five applets, each of which demonstrated certain properties of circles. In the next one-hour session, which was conducted on a different day, the students worked on demonstrating a circle theorem using appropriate technology and verifying the theorem from the description given. Finally, the students were required to prove two of the theorems given on the first day.

Comments on the application of the assessment criteria and any change of levels

This task was suitably assessed using criteria B and C.

The moderation team believes that whilst the applets were provided, the students had to select and apply problem-solving strategies to observe and record data that led to a conjecture. Within the section on proving a theorem, the students could choose from a variety of methods including those involving technology.

Did the design of the task allow students to reach the highest levels of the criteria?

Yes

Comments

The task allowed the students to find relationships and to describe them as general rules. This task, performed on tablets, allowed the students to integrate the technology into the presentation of their solutions.

Was the background information adequate?

Yes

Comments

The background information contained the student worksheets with task-specific clarifications and answers for the two sessions. The moderation team considered this task to fulfil the assessment performed under test conditions and comply with the sample requirement.

Task 5**The Lottery Question****Brief description of the task**

The students were already familiar with a form of lottery and were required to investigate the probabilities behind the school lottery. The assumptions for the game were explained in the introductory lesson, which was available to the moderation team through the sound file. The students were advised to explain the transformations to the lottery with evidence and a reflection on the validity of their modifications.

Comments on the application of the assessment criteria and any change of levels

This task was suitably assessed using criteria A and D. This task, performed on tablets, allowed the students to integrate the technology into the presentation of their solutions.

Did the design of the task allow students to reach the highest levels of the criteria?

Yes

Comments

The task allowed the students to reach the highest descriptor levels as it required the students to use knowledge and understanding and was set in a challenging real-life context.

Was the background information adequate?

Yes

Comments

In addition to the student worksheet, with task-specific clarification and answers, the background material included a sound file of part of a lesson in which the investigation was presented. The sound file provided a full documentation of the instructions provided to the students.

Section C Summary of the use of the assessment criteria**Were there any major discrepancies in the levels awarded?**

No

Comments (This box is for brief general comments on any problematic criteria)

The moderation team would like to make some suggestions for improvements with the use of criteria A and B.

When assessing with criterion A, provide more questions in the later sections to allow the students an opportunity to access the higher levels.

To achieve the highest levels of criterion B, the students must demonstrate a capacity to select and apply problem-solving techniques. Tasks assessed with criterion B are more likely to be open-ended investigations that enable to students to choose from a variety of methods.

Section D

Are there any points that must be addressed for future samples in order to comply with moderation requirements?

Yes

Points

Within the background information, ensure that there is an indication of which task was taken under test conditions.

Are there any suggestions that the school might wish to consider?

Yes

Suggestions

Consider using fewer tasks to complete the requirements for the moderation sample.

Consider making the number of questions in each section of the broad-based examination more equitable, so as to allow the students the ability to achieve the higher levels.

Consider providing students with less prescriptive tasks that will enable them to select and apply problem-solving strategies.